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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Application No. Applicant(s) 10/712.890 ADDINGTON ET AL. Office Action Summary Examiner Art Unit Phillip H. Nauven 2191 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 21 January 2009. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1.3-20.22-29.34.35 and 59-72 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) 14-20 and 22 is/are allowed. 6) Claim(s) 1.3-6.8-13.23-29.34.35 and 59-72 is/are rejected. 7) Claim(s) 7 is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _ 6) Other:

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DETAILED ACTION

This action is in response to the amendment filed 1/21/2009.

 Claims 1, 3-20, 22-29, 34, 35, and 59-72 remain pending in this application with claims 1, 4-12, 14, 15, 19, 20, 22-28, 34, 35, 61, 67-69, and 72 amended, claims 2, 21,

30-33, and 36-58 cancelled.

Response to Amendment

 Prior rejection to claims 67-72 under 35 U.S.C. 101 is hereby maintain in view of applicant's argument is not persuasive.

A rejection is issued to claims 1, 3-13, 67, and 68 under 35 U.S.C. 112, second
 Para in view of Applicant's amendment.

An objection is issued to claims 25-28, 34, and 35 in view of applicant's amendment.

Response to Arguments

Applicant's arguments filed 1/21/2009 have been fully considered but they are not deemed persuasive.

Applicant argues:

Providing MPEP guideline as to why a system directed to software is non-statutory.
 The rejection to claims 67 and 69 are improper because the components in claims 67 and 69 can only be construed as hardware in some manner.

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2. <u>Hendricks</u> fails to teach host protocol file and host profile file. The host protocol file is not a program per se, but the set of commands which can be used to create a configuration message set for configuring the host. The host profile file is not the same as control signals because a file describing a host is data, while control signals are similar to commands.

- 3. The analog NTSC signals are not executable command on a processor in a host.
- 4. <u>Hendricks</u> fails to teach a database stores one host data file associated with a host type in a database" as well as "database storing at least one host address associated with the host data file.
- 5. Hendricks fails to teach host data files transmitted to the host.
- 6. Peng fails to teach a host file database and enhanced services system ("ESS").
- Peng fails to teach providing messages for interacting with the host on a cable distribution network.
- 8. Inconsistency interpretation for host and enhanced service system.
- 9. Peng fails to teach neither a host protocol file nor a host profile file.
- 10. <u>Peng</u> fails to teach transferring the host file from the host file database to the enhanced services system.
- 11. Peng fails to teach a database stores the host file and a certification file.
- 12. Peng fails to teach maintaining an association with the host manufacturer and a model.
- 13. <u>Peng</u> fails to teach providing the host file from the host software manufacturer to a certification entity; testing the operation of the host file by the certification entity;

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certifying the host file for operation in a host wherein certifying the host file for operation in a host comprises certifying the host file for execution on a host associated with a specific host manufacturer and a model associated with the specific host manufacturer.

Schaffer also fails to teach a separate certification entity is testing the software.

14. Peng fails to teach wherein the data processing system is operated by the

certification entity or the host software manufacturer.

15. <u>Peng</u> fails to teach wherein the host file includes at least one of a host protocol file, host data file, host profile file, or host configuration message set file.

- 16. Peng fails to teach claim 9.
- 17. Peng fails to teach claim 11.
- 18. <u>Hendricks</u> fails to teach claim 16 because <u>Hendricks</u> does not explicitly state the terminal type comprises a specific host manufacturer and a model associated with the specific host manufacturer. The type could refer to a set top box with or without a hard disk, capable of high definition or not, etc. There is no identification that it would be the manufacturer and model information.
- 19. Hendricks fails to teach claim 29.
- 20. Wireless devices are not connected to a wired network, much less a cable network.
- 21. <u>Hendricks</u> fails to teach determining if the host file received matches one of the plurality of host types associated with the enhanced services system.
- 22. Peng fails to teach the server operatively connected to a cable distribution network.
- 23. Peng fails to teach two way cable network.

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Examiner respectfully disagrees:

1. Section 2106.01 of the MEPE indicates:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and >In re< Warmerdam, 33 F.3d *>1354.< 1360-61, 31 USPQ2d *>1754.< 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

According to the MPEP, Section 2106.01, software is non-statutory unless recorded on some computer-readable medium. The system in claim 67 is considered software per se because the components ("a data processing system", "a database", and "a communication network") make up the system are software. The data processing system is not necessarily construed as "hardware" if it does not include at least a hardware component. A database is definitely not a hardware component. A communication network is not a hardware component unless it comprises connected hardware components. Claim 69 is rejected with the same reason because the components make up the system are reasonably interpreted as software.

2. Although claim 63 recites a host protocol file and a host profile file but does not indicate what included inside those files. Applicant is respectfully advised that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, giving the term "file" its broadest reasonable interpretation, it is understood that the term "file" can be a program, table or list including signals (i.e. data or commands), information, etc. As recited in claim 63, the protocol file is used to create a configuration message. Examiner interprets the host protocol file is the same as the program in Hendricks because as disclosed in Hendricks, the program is used to create a configuration message for configuring the host. The host profile file is interpreted as the control signals because Hendricks processes the control signals to provide a user interface (i.e. menu) for selecting services as recited in claim 63.

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3. If the host processes the analog NTSC signals to allow the subscriber to view the program then the analog NTSC signals is considered as the executable command on a processor in a host. Hendricks teaches "Control signals are likewise extracted and decompressed and then either executed immediately or placed in local storage such as a RAM" (See col. 7:51-53). Thus, the NTSC signals are executable in the host.

4. Hendricks teaches "No set number of databases 226 are required for the network controller 214 to perform its operations, and a single temporary database may be

used...." (See col. 29:43-45). Thus, one database may be used to include all the data file of the set of databases such as "Viewer Profile database", "Account/Billing database", etc. Hendricks further teaches "Viewer Profile database 314 includes: (i) a Set top ID file, (ii) a Subscriber Region File, (iii) a Customer ID File, and (iv) a Viewer Log File...The Set top File 330, common to each of the databases comprising the network controller's database 226, contains set top converter records with each record representing a unique set top terminal 220. Example of information stored in this file includes set top terminal type, software version and set top terminal identification/serial number...The Customer ID and Viewer Log Files, part of file group 332, include the subscriber's personal information, such as name, address and telephone number." (See col. 29:60-67 - col. 30:1-13). Hendricks goes on to teach in (col. 30:50-59) "The Account/Billing database 316 includes (i) the Set top ID file 330, and (ii) an Account History File,...The Set top ID File, as described above, contains information unique to each subscriber, including set top terminal type,...set top identification/serial number..." (col. 31:9-10). "The Program Scheduling database 320 includes (i) the Set top ID File

330..." (col. 31:22-23) "The Advertisement Library database 322 includes (i) the Set top ID File 330..." (col. 31:31-32) "The Advertisement Scheduling database 324 includes (i) the Set top ID File 330..." Thus, every database in the databases set includes at least a host file associated with the host type and a host address for at least billing and/or scheduling purposes.

- 5. <u>Hendricks</u> teaches in col. 40:3-10 "The network controller CPU 224 generates a billing report for each set top terminal 220 based on the updated account history, function 532. This billing report can be sent to the set top terminals 220 in a polling request. Specifically, in one embodiment, the information field of the frame format described in FIG. 9a (see col. 26:33-39 "(1) a leading flag 922 at the beginning of the message, (2) an address field 924, (3) a subscriber region designation 926, (4) a set top terminal identifier 928 that includes a pooling command/response (or P/F) bit 930, (5) an information field 932, and (6) a trailing flag 934 at the end of the message") is used to provide the set top terminal 220 with billing information." Accordingly, the host data file is sent to the host for billing purposes.
- 6. Applicant is respectfully reminded that limitations from the specification cannot be brought into the claim. First interpretation, although an enhanced services system is recited in the claim but it is reasonable to interpret this enhanced services system as any component (can be a software or hardware component) that receives a file from another component. In this case, the wireless device is considered as the enhanced services system that receives a host file from a database which is the upgrade server.
 The host is recited in the claim but there is no connection between the host and the

other recited components such as the enhanced services system or the database for receiving the host file. The host file is for configuring the host but the host never receives the host file. Furthermore, the claim does not limit that the host and the enhanced services system cannot be one component. Giving a broadest reasonable interpretation, the host and the enhanced services system can be one component or located within each other or the host can be any other host (i.e. any other wireless device) that can be configured using the software package received from the wireless devices. Therefore, the wireless device is considered as an enhanced services system.

- 7. Alternative interpretation, the electronic files includes data (i.e. message) for updating (i.e. interacting) the wireless device (i.e. the host). Giving the term "message" its broadest reasonable interpretation, it is understood that the term "message" can be any data or information that can be used to update or interact with the wireless device.
- 8. Multiple interpretations were giving to the claim 23 to indicate that it was broadly written so that multiple interpretations can be applied. However, the alternative interpretation was clearly indicated that the certification servers is interpreted as the enhanced services system and the upgrade server is interpreted as the host file database and the wireless device is interpreted as the host.
- 9. Those files disclosed by <u>Peng</u> is reasonably interpreted as a host protocol file and/or host profile file. <u>Peng</u> teaches "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data" (see col. 5:48-53). As recited

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in the claim, "a host protocol file comprising protocol message format information for communicating with the host type" this file is equivalent to one of the data files because the data files include data (i.e. message) for communicating with the wireless device type. The claim further recited "a host profile file indicating capabilities of the host types" this file is equivalent to one of the system configuration files because the system configuration files indicate capabilities (i.e. platform, environment, hardware/software configuration, etc.) of the wireless device. Other limitations argued by the applicant such as "used to generate messages for communicating with the host" or "host profile file is not downloaded to a host...", etc., are not taken into consideration because they are not recited in the claim. Again, limitations from the specification cannot be brought into the claims.

- 10. As explained above, the wireless device is considered as the enhanced services system. Applicant is respectfully suggested to amend the claim to further clarify the enhanced services system, the host, and the headend and the connection between them.
- 11. Peng teaches at two separate files that the software component certification server 203 receives and maintains. Peng teaches in col. 7:45-56 "The software component certification server 203 provides an interface to device manufacturers and, thus receives new device information on embedded software packages from device manufacturers. The software component certification server 203 also receives software component submission requests from the software component distributor, provides notification of approval/decline of new software packages...and approved software packages, and

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repackages and distributes approved software packages to upgrade servers..." The device information is considered as a host file and is received and stored from the device manufacturers. This device information comprises information regarding the client device such as type, model, etc., for the certification server 203 to certify the software packages. At least one of the file of the approved/certified software packages is considered as a certification file because they have been certified by the certification server.

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- 12. The device information file comprises information about the device such as type, model, etc., has been received and stored by the certification server 203. This information after received and stored by the certification server is considered as an association with the device manufacturer and model.
- 13. A new rejection is issued in view of applicant's amendment.
- 14. Since a new rejection is issued for claim 1, rejection for claim 3 is also changed.
- 15. At least one of the system configuration files included in the electronic files is considered as host profile file and/or host configuration message set file because they comprise data indicating the configuration/capability of the device. The claim does not indicate that these files are not sent to a host. In fact, claim 1 indicates that "certifying the host file for operation in a host" which indicates that the host file is sent to the host for operation.
- 16. As explained above, the enhanced services system is considered as the host.
- 17. As explained above, the enhanced service system is the wireless device.

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18. An ordinary skill in the art could recognize that the set top terminal identification/serial number in <u>Hendricks</u> is unique and used to identify the manufacturer and model of the set top box.

- 19. The idea is the use the date and time when transferring file as disclosed by

 Hendricks to reduce network traffic. The combination of Peng and Hendricks is obvious
 and proper because incorporating the teaching of Hendricks to use the date and time
 when a file is transferred between components to prevent the network to be overloaded.
 20. The enhanced services system (i.e. wireless devices) in Peng is capable to connect
 to any other devices but this limitation does not explicitly teach by Peng. However, it is
 well known that the enhanced services system is capable to connect to other devices
 such as headend that capable of receiving data. Hendricks teaches this limitation in
 FIG. 1. The combination of Peng and Hendricks is to indicate that an enhanced
 services system is capable of connecting to other devices. Examiner is not trying to
 replacing the invention of the prior arts. The examiner is trying to combine the teaching
 of the invention by indicated that an enhanced services system is capable of connecting
 to other components.
- 21. In order for packaging a specific program package to specific cable headend and/or set top terminal, a determination must be perform to compare if the specific program matches the specific headend and/or set top terminal.
- 22. The servers such as Certification Server, Upgrade Server, Billing Server, Logging Server, and Authentication Servers in <u>Peng</u> are operatively connected to a cable distribution network. They are operatively connected. See FIG. 2.

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23. It is proper to interpret that <u>Peng</u> teaches two way cable network. The server 204 transmits software packages and receives message from the handset users though a Gateway and Communication infrastructure. The servers, the Gateway, and the Communication infrastructure are connected to a cable network.

Allowable Subject Matter

- Claims 14-20 and 22 are allowed.
- 8. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

Claims 25-28, 34, and 35 objected to because of the following informalities:
 These claims include limitation such as "host file file". Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 10. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 11. Claim 1 recites the limitation "the host software file" in the body of the claim.
 There is insufficient antecedent basis for this limitation in the claim. Claims 3-13 directly or indirectly depend on claim 1 and therefore suffer the same deficiency.
- 12. Claim 67 recites the limitation "host software file" in the body of the claim. There is insufficient antecedent basic for this limitation in the claim. Claim 68 depends on claim 67 and therefore suffers the same deficiency.

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Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 67-72 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 67 and 69 recite a system but it appears reasonable to interpret this system by one of ordinary skill in the art as software. This system must include at least one hardware component (i.e. a processor, a memory, or any applicable hardware component). All their dependent claims are suffered the same rejection.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- Claim 63-66 and 69-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Hendricks et al. (USPN 5.600,364).

As per claim 63:

Hendricks teaches

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loading a host protocol file associated with a type of host (see at least col. 12:8-10 "The set top terminal 220 receives compressed program (i.e. a host protocol file) and control signals (i.e. host profile file) from the cable headend 208"):

loading a host profile file associated with the type of host (see at least col. 12:8-10 "The set top terminal 220 receives compressed program (i.e. a host protocol file) and control signals (i.e. host profile file) from the cable headend 208");

processing the host profile file to provide a user-interface for selecting at least one service related parameter associated with a service provided to a host on a cable network (see at least col. 12:19-22 "After processing certain signals received from the cable headend 208, the set top terminal 220 is able to store menu templates for creating menus that are displayed on a subscriber's television by using an array of menu templates");

receiving a user input to determine the at least one service related parameter (see at least col. 12:47-50 "The set top terminal 220 then displays specific menus on the subscriber's television screen that corresponding to the inputs the subscriber selects");

using the host protocol file and the at least one service related parameter to generate a host configuration message wherein the format of the host configuration message is specific to said host type (see at least col. 12:51-57 "If the subscriber selects a specific program from a menu, the set top terminal 220

determines on which channel the program is being shown, demultiplexes and extracts the single channel transmitted from the cable headend 208. The set top terminal 220 then decompresses the channel and, if necessary, converts the program signal to an analog NTSC signal to enable the subscriber to view the selected program": and

associating the host configuration message with the type of host (see at least col. 12:51-57 "If the subscriber selects a specific program from a menu, the set top terminal 220 determines on which channel the program is being shown, demultiplexes and extracts the single channel transmitted from the cable headend 208. The set top terminal 220 then decompresses the channel and, if necessary, converts the program signal to an analog NTSC signal to enable the subscriber to view the selected program").

As per claim 64:

Hendricks further teaches

wherein the type of host is associated with a host manufacturer and a model of the host manufacturer (see at least col. 30:1-2 "...set top terminal type, software version and set top terminal identification/serial number").

As per claim 65:

Hendricks further teaches

wherein the host protocol file comprises a plurality of protocol messages capable of recognition by the type of host (see at least col. 12:9 "compressed program").

As per claim 66:

Hendricks further teaches

wherein the configuration message is an executable command on a processor in a host (see at least col. 12:56 "analog NTSC signals").

As per claim 69:

Hendricks further teaches

an enhanced services system operatively connected to a communications network, receiving and storing at least one host data file associated with a host type in a database, wherein the database stores at least one host address associated with the host data file (see at least col. 29:45-53 "the network controller 214 uses several databases (indicated at 226) that are accessed during network control operations. These databases 226 are identified in FIG. 11 and include: (1) the Viewer Profile database 314, (2) the Account/Billing database 316, (3) the Program Library database 318...."); and

a cable distribution network having a headend, operatively connected to the enhanced services system at the headend for receiving the host data file from the enhanced services system and transmitting the host data file to a host

associated with the host address wherein the host is associated with said host type and said enhanced services system stores an association between said host type and said host address (see at least FIG. 1).

As per claim 70:

Hendricks further teaches

wherein the host type comprises a host manufacturer identifier and a model identifier of the host manufacturer (see at least col. 30:1-2 "file includes set top terminal type, software version and set top terminal identification/serial number").

As per claim 71:

Hendricks further teaches

wherein the cable distribution network supports two-way communication (see at least col. 17:16 "Using two-way communication").

As per claim 72:

Hendricks further teaches

wherein the database further stores an indication of the host data file transmitted to the host (see at least col. 11:27-29 "Status and billing information is sent from the set top terminal to the network controller at the cable

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headend...in alternative system embodiments, the operation center 202 and the statistical and billing sites are collocated").

Claim Rejections - 35 USC § 102/103

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filled in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filled in the United States before the invention by the applicant for patent, except that an international application filled under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filled in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- Claims 23-25, 27, 28, 59, and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by <u>Peng</u> (USPN 7,007,049).

As per claim 23:

Pena teaches

receiving a host file at a host file database (see at least col. 7:52-53

"...distributes approved software packages to upgrade servers"), the host file for configuring a host wherein the host file contains messages for interacting with the host on a cable distribution network wherein the host file is associated with a specific host manufacturer and a model of the specific host manufacturer (see at least col. 5:48-53 "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software

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components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data");

maintaining a first list of at least one enhanced services system, comprising the enhanced services system further associated with a destination address and the host software file (see at least col. 8:17-19 "the server 204 sends a user notification to notify the client device user that these are software components available for updating" - in order for the upgrade server to send a notification to the user, a list of users must be existed or maintained by either upgrade server, upgrade manager, billing server, authentication server or logging server; see also FIG. 2 - "Billing Server", "Logging Server" and "Authentication Server" must also store clients records);

maintaining a second list of the destination address associated with a set of communication parameters, the set of communication parameters including authentication information (see at least FIG. 2 – "Authentication Server");

establishing a communications path between the host file database and the enhanced services system, the communications path using the destination address (see at least *FIG. 2*);

authenticating the host file database to the enhanced services system using in part the set of communications parameters (see at least col. 8:28-31 "the upgrade server 204 authenticates and authorizes the user and/or requesting device");

transmitting the host file from the host file database to the enhanced services system on the communications path (see at least col. 8:24-26 "the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset");

receiving a confirmation of the receipt of the host software file from the enhanced services system (see at least col. 8:32-37 "Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205); and

recording an indication of the confirmation of the receipt of the host software file, the indication recorded in the host file database (see at least col. 8:32-37 "Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205).

As per claim 23 (An alternative interpretation):

Peng further teaches

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receiving a host file at a host file database (see at least col.7:23-24
"...submits embedded software packages to the software component certification server"), the host file for configuring a host wherein the host file contains messages for interacting with the host on a cable distribution network wherein the host file is associated with a specific host manufacturer and a model of the specific host manufacturer (see at least col. 5:48-53 "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data");

maintaining a first list of at least one enhanced services system, the enhanced services system further associated with a destination address and the host file (In order for the distributors to send the new release software package to the certification servers, a list of certification servers (names, IP addresses, etc.) must be maintained by the distributors. Therefore, it is inherent.);

establishing a communications path between the host file database and the enhanced services system, the communications path using the destination address (see at least *FIG. 2* – communication between certification server 203 and upgrade server 204):

transmitting the host file from the host file database to the enhanced services system on the communications path (see at least col. 7:52-53 "...distributes approved software packages to upgrade servers").

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Peng does not explicitly teach

maintaining a second list of the set of communication parameters

including authentication information;

authenticating the host file database to the enhanced services system

using in part the set of communications parameters;

receiving a confirmation of the receipt of the host software file from the

enhanced services system; and

recording an indication of the confirmation of the receipt of the host

software file, the indication recorded in the host file database.

However, it would have been obvious to one having an ordinary skill in the art at

the time the invention was made to recognize that an authentication process (see col.

8:29-30) and confirmation of the receipt of the software (see col. 36-37) are performed

in Peng's approach in order to modify Peng's invention to allow the authentication

performs to the server. One would have been motivated to modify to authenticate the

upgrade server prior transferring the approved software packages to allow only

authorized server to receive the software packages and to further to log the status of the

transaction and provide a report to indicate the transaction is completed.

As per claim 24:

Pena further teaches

storing the host file in a second database located at the enhanced services system (see at least *FIG. 2* - the approved software packages are stored at the upgrade server for distributing to the clients);

transmitting a copy of the host file stored in the second database to a host (see at least col. 8:24-26 "the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset");

receiving a confirmation of receipt of the host file from the host (see at least col. 8:32-37 "Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205); and

recording an indication in the second database regarding the host file downloaded to the host (see at least col. 8:32-37 "Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205).

As per claim 25:

Peng further teaches

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transmitting the host file from the enhanced services system to the host; and executing the host software in the host (see at least col. 8:51-56 "Upon execution, the upgrade client 130 automatically detects the remote change of any embedded software components, notifies users of an embedded software component upgrade, an upgrades a software component based on the carriers

and/or users control").

As per claim 27:

Peng further teaches

wherein the transmitting of the host file from the host file database uses the Internet (see at least *FIG. 2*).

As per claim 28:

Peng further teaches

wherein the host file comprises at least one from the group of host protocol file, host profile file, host data file, and host configuration message set file (see at least col. 5:48-53 "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data").

As per claim 59:

Peng teaches

receiving a host file associated with a host type associated with a specific host manufacturer and a model associated with the specific host manufacturer (see at least col. 7:52-53 "...distributes approved software packages to upgrade servers"), wherein the host file comprises a host protocol file comprising protocol message format information for communicating with the host type and a host profile file indicating capabilities of the host type(see at least col. 5:48-53 "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data");

determining an enhanced services system to receive the host software file (see at least col. 8:28-31 "the upgrade server 204 authenticates and authorizes the user and/or requesting device");

establishing a connection from the enhanced services system to a host file database (see at least FIG. 2);

authenticating the enhanced services system to the host file database (see at least col. 8:28-31 "the upgrade server 204 authenticates and authorizes the user and/or requesting device"):

transferring host file from the host file database to the enhanced services system (see at least col. 8:24-26 "the upgrade server 204 uses the original

handset data communication protocol to send the delta file to the requesting handset"); and

recording an indication of the date and time associated with the transferring of the host file to the enhanced services system (see at least col. 8:32-37 "Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205).

As per claim 67:

Peng further teaches

a data processing system transmitting a host file, the data processing system comprising a database capable of receiving and storing the host file and maintaining an association of the host file with a host manufacturer, the database further maintaining an association of the host file with a specific host model of the host manufacturer, the database storing a certification file associated with the host file, the database associating the host file with an enhanced services system (see at least col. 7:46-54 "The software component certification server 203 also receives software component submission request from the software component distributor, provides notification of approved/decline of new software packages to submitting upgrade servers, provides disk management for submitted and

approved software packages, and repackages and distributes approved software packages to upgrade servers" - Note: the approved software packages themselves can be a certification file); and

a communications network, operatively connected to the data processing system, receiving the host file from the data processing system and transferring the host file to the enhanced services system (see at least col. 8:24-27 "upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset").

Claim Rejections - 35 USC § 103

- 18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 1, 3-6, 8, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Peng</u> (USPN 7,007,049), in view of <u>Ma et al</u>. ("Framework for Third Party Testing of Component Software").

As per claim 1:

Peng teaches

producing a host file by a host software manufacturer (see at least col.

7:10-15 "The software component distributor 202 of an embodiment provides a web-based user interface by which software providers package and release new

embedded device software components such as an improved MP3 drive, an upgraded Java 2 platform, Micro Edition (J2ME) Mobile Information Device Profile (MIDP) library, or a feature-added address book application");

providing the host file from the host software manufacturer to a certification entity (see at least col.7:23-24 "...submits embedded software packages to the software component certification server");

testing the operation of the host file by the certification entity (see at least col. 7:42-53 "...provides notification of approval/decline of new software packages to submitting upgrade servers...");

certifying the host file for operation in a host wherein certifying the host file for operation in a host comprises certifying the host file is compatible with a host associated with a specific host manufacturer and a model associated with the specific host manufacturer (see at least col. 7:42-53 "The software component certification server 203 provides an interface to device manufacturers and, thus, receives new device information on embedded software packages from device manufacturers. The software component certification server 203 also receives software component submission requests from the software component distributor, provides notification of approval/decline of new software packages to submitting upgrade servers, provides disk management for submitted and approved software packages, and repackages and distributes approved software packages to upgrade servers"):

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establishing a first connection from a data processing system to a host file database (see at least FIG. 2);

transferring the host file from the data processing system to the host file database after the host file has been certified by the certification entity (see at least col. 7:52-53 "The software component certification server 203...distributes approved software packages to upgrade servers");

identifying an enhanced services system to receive the host file (see at least col. 8:29-32 "the upgrade server 204 authenticates and authorizes the user and/or requesting device, and verifies prerequisite capabilities and limitations of the requesting device");

establishing a second connection from the host file database to the enhanced services system (see at least F/G. 2); and

transferring the host file from the host file database to the enhanced services system (see at least col. 8:24-26 "the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset").

More specific, Ma teaches

a third party testing (i.e. a certification entity) of component software (see at least P. 1 "According to this approach, a software system is developed by assembling appropriate components from a repository of viable components.

Thus, to ensure that a component based software system can run properly and effectively, the qualities of constituent components have to be assured").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify <u>Peng</u>'s approach to incorporate the teaching of <u>Ma</u> to include a third party testing entity to test the software package prior transmitting to the upgrade or the certification server. The modification would have been obvious to one of ordinary skill in the art because it would ensure the software package run properly and effectively.

Neither Peng nor Ma explicitly teach

receiving confirmation of receipt of the host file from the host file database.

However, official notice is taken that confirming of receipt of the host software file is well known in the art at the time the invention was made. One of ordinary skill in the art would have been motivated to modify <u>Peng</u> in combination with <u>Ma</u> to include receiving confirmation of receipt of the software packages from the wireless devices in order to indicate that the approved software packages are successfully transferred. Furthermore, one of the ordinary skills in the art at the time the invention was made would have been motivated to use the same confirmation technique taught by <u>Peng</u> (see col. 8:28) to confirm the receipt of the approved software packages at the upgrade

server to allow the wireless devices to confirm of receipt of the software packages at the

wireless devices.

As per claim 3:

Peng further teaches

wherein the data processing system is operated by the certification entity

or the host software manufacturer (see at least col. 7:52-53 "The software

component certification server 203...distributes approved software packages to

upgrade servers").

As per claim 4:

Peng further teaches

wherein the host file includes at least one of a host protocol file, host data

file, host profile file, or host configuration message set file (see at least col. 5:48-

53 "The electronic files 110 and 112 include software files including dynamic link

library files, shared object files, embedded software components (EBSCs),

firmware files, executable files, data files including hex data files, system

configuration files, and files including personal use data").

As per claim 5:

Peng further teaches

wherein the host file includes a host data file, wherein said host data file contains software objects for execution in the host (see at least col. 5:48-53 "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data").

As per claim 6:

Peng further teaches

wherein the host file includes a host profile file, where said host profile file indicates one of a plurality of resources incorporated in the host, (see at least col. 5:48-53 "The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data"), wherein at least one of the resources processes digital video signals receives by the host over a cable distribution system (see at least FIG. 10 and 14).

As per claim 8:

Peng does not explicit teach

authenticating the data processing system to the host file database prior the transferring the host file.

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize that Peng's approach performs authenticating on the client devices to only allow the authorized user to receive the software and therefore to modify Peng's approach to include authenticating the upgrade server prior transferred the approved software packages to only allow the authorized upgrade server to receive the approved software packages. One would have been motivated to modify in order to allow only the authorized updated server to receive the approved software packages.

As per claim 10:

Peng further teaches

recording an indication in the host file database of the transfer of the host file to the enhanced services system (see at least col. 8:36-37 "logs the status of the upgrade transaction, and reports the results to the upgrade manager 205").

As per claim 12:

Peng further teaches

maintaining an enhanced services system communication file comprising an address associated with the enhanced services system, communication parameters for use in transferring the host file to the enhanced services system, and authentication data associated with the enhanced services system (see at

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least FIG. 2 – "Existing Billing Server", "Existing Logging Server", and "Existing

Authentication Server").

As per claim 13:

Peng further teaches

wherein the step of establishing a second connection from the host file

database to the enhanced services system comprises establishing a second

connection from the host file database to the enhanced services system using

the communication parameters maintained in the communication file (see at least

FIG. 2).

20. Claims 29 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Peng (USPN 7,007,049), in view of Hendricks et al. (USPN 5,600,364).

As per claim 29:

Peng does not explicitly teach

wherein the step of establishing a communications path between the host

file database and the enhanced services system is determined in part based on a

time indicated in the communication parameters.

However, Hendricks teaches

wherein the step of establishing a communications path between the host file database and the enhanced services system is determined in part based on a

time indicated in the communication parameters (see at least col. 8:60

"...information includes the date and time slot, and program category of the

various programs")

Therefore, it would have been obvious to one having an ordinary skill in the art at

the time the invention was made to modify $\underline{\text{Peng}}$'s invention to include the teaching of

Hendricks. One would have been motivated to modify to only allow the software file to

be transferred at a certain date and time to a particular client to prevent from network to

be overloaded.

As per claim 68:

Peng does not explicit teach

a cable distribution network operatively connected to the enhanced

services system at a headend of the cable distribution network capable of

receiving the host file from the enhanced services system.

However, Hendricks teaches

a cable distribution network operatively connected to an enhanced

services system at a headend of a cable distribution network capable of receiving

a host file from the enhanced services system (see at least FIG. 1).

Therefore, it would have been obvious to one having an ordinary skill in the art at

the time the invention was made to modify Peng's invention to include the teaching of

Hendricks. One would have been motivated to modify in order to fulfill the purpose of

distributing software.

21. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Hendricks et al. (USPN 5,600,364), in view of Peng (USPN 7,007,049).

As per claim 34:

Hendricks teaches

receiving a host file associated with a specific host manufacturer and a

model associated with the specific host manufacturer (see at least col. 8:29-31

"At the operation center 202, television programs are received from external

program sources in both analog and digital form");

determining an enhanced services system to receive the host software file

by retrieving a file associating an enhanced services system with a plurality of

host types, each host type comprising a specific host manufacturer identifier and

a model identifier associated with the specific host manufacturer and determining

if the host file received matches one of the plurality of host types associated with

the enhanced services system (see at least col. 9:9-18 "The packaging process

also accounts for any groupings by satellite transponder which are necessary.

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The operations center 202 may send different groups of program to different cable headends 208 and/or set top terminals 220. One way the operations center 202 may accomplish this task is to send different program packages to each transponder. Each transponder, or set of transponders, then relays a specific program package to specific cable headends 208 and/or set top terminals 220" - in order to send a specific program package to specific cable headend, a list or file of headends must be maintained and retrieved);

establishing a connection from the enhanced services system to a host file database (see at least F/G. 2):

transferring the host from the host file database to the enhanced services system (see at least col. 10:10-12 "the cable headend 208 receives and further processes the signals before they are relays to each set top terminal 220");

storing the host file in a second database located at the enhanced services system (see at least col. 29:45-53 "the network controller 214 uses several databases (indicated at 226) that are accessed during network control operations. These databases 226 are identified in FIG. 11 and include: (1) the Viewer Profile database 314, (2) the Account/Billing database 316, (3) the Program Library database 318....");

transmitting at least a portion of the host file stored in the second database to a host (see at least col. 12:8-10 "The set top terminal 220 receives compressed program and control signals from the cable headend 208"):

receiving a confirmation of receipt of the host file from the host (see at least col. 11:27-30 "Status and billing information is sent from the set top terminal 220 to the network controller 214 at the cable headend 208 and not directly to the operations center 202"); and

recording an indication in the second database regarding the host file download to the host (see at least col. 11:27-30 "Status and billing information is sent from the set top terminal 220 to the network controller 214 at the cable headend 208 and not directly to the operations center 202").

However, Peng teaches

authenticating the enhanced services system to the host file database (see at least col. 8:28-31 "the upgrade server 204 authenticates and authorizes the user and/or requesting device").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify <u>Hendricks</u>'s approach to incorporate the teaching of <u>Peng</u> to allow authenticating the wireless devices. The modification would have been obvious because it would allow only the authorized devices to receive the software

Neither Hendricks nor Peng teaches

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recording an indication of the date and time associated with the transferring of the host software to the enhanced services system.

However, official notice is taken that recording an indication of the date and time (i.e. status) the software package has been transferred is well known in the art at the time the invention was made. Furthermore, by using the same technique of recording the status of transferring programs from the headend to the terminal, one can record the status (i.e. date and time) of transferring programs from operation center to the headends for account and billing information purposes.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over
 Hendricks et al. (USPN 5,600,364), in view of Peng (USPN 7,007,049), in further view of Schaffer (USPN 5,870,539).

As per claim 35:

Hendricks does not explicitly teach

wherein the host software file is tested for operation on a specific manufacturer and host manufacturer's model.

However, Schaffer teaches

wherein the host software file is tested for operation on a specific manufacturer and host manufacturer's model (see at least col. 1:33-41 "For each

assertion, the designer then develops a set of software "test cases." The test cases exercise as many as possible of the code paths in the target products to prove the validity of the assertions. If each assertion is proven for a particular computer model and operating system, the software product is considered to be fully tested for that particular system. Thus, for a particular software product, typically the target product is tested on various combinations of computer models and operating systems on which the product may be run").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify <u>Hendricks</u> in combination with <u>Peng</u>'s approach to include the well known testing technique taught by <u>Schaffer</u>. One would have been motivated to test the software packages prior transferring to the upgrade server in order to ensure the software packages are compatible with a particular client machine.

 Claim 26 and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (USPN 7,007,049), in view of <u>Devanbu et al</u>. (USPN 6,148,401).

As per claim 26:

Peng does not explicit teach

transmitting an indication of certification of the host file; and

verifying in the enhanced services system that the indication of certification has been received prior to transmitting a copy of the host file to the host.

However, Devanbu teaches

transmitting an indication of certification of the host software file (see at least col. 7:44-50 "The administrator then sends a new authorization message to the certifier. An authorization message causes the certifier to use a new or updated version of certification instructions, and also provides information on how to generate a certificate signifying that the new certification instructions have been used to determine if a subject set possesses a particular property"); and

verifying in the enhanced services system that the indication of certification has been received prior to transmitting a copy of the host software to the host (see at least col. 8:16-17 "the provider distributes the software and certificate by sending them to a host")

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's approach to include the teaching of Devanbu. One would have been motivated to modify in order to allow the host to determine if the software possesses the property.

As per claim 60:

Peng further teaches

communicating a software module associated with a brand and model of a consumer electronics host device to a host file database (see at least col.7:23-24 "...submits embedded software packages to the software component certification server");

communicating the software module from the host file database to an enhanced services system, the enhanced services system comprising a server and a database for storing the software module, the server operatively connected to a cable distribution network (see at least col. 7:42-53 "...provides notification of approval/decline of new software packages to submitting upgrade servers...");

detecting activation of a host, the host associated with the host manufacturer and further associated with a model of the host manufacturer, the host connected to the cable distribution network (see at least col. 8:17-27 "the server 204 sends a user notification to notify the client device user that there are software components available for updating...upon receiving confirmation from the handset users..."); and

transmitting the software module from the server to the host (see at least col. 8:24-27 "Upon receiving confirmation from the handset users, the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset")..

Peng does not explicitly teach

communicating a certification indication associated with the software module to the host file database, the host file database recording the certification indication in association with the software module.

However, Devanbu teaches

communicating a certification indication associated with the software module to the host file database, the host file database recording the certification indication in association with the software module (see at least col. 8:15-19 "The provider distributes the software with the certificate. In one embodiment, the provider distributes the software and certificate by sending them to a host").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng to distribute a certificate along with the software package. One would have been motivated to modify in order to indicate that the software package is certified.

As per claim 61:

Peng further teaches

wherein detecting activation of the host is initiated by the receipt of a message from the host transmitted in a two-way cable network (see at least col. 8:17-27 "the server 204 sends a user notification to notify the client device user

that there are software components available for updating...upon receiving confirmation from the handset users...").

As per claim 62:

Peng further teaches

recording in an enhanced services server an indication signifying the transmittal of the software module from the server to the host (see at least col. 36-37 "...logs the status of the upgrade transaction, and reports the results to the upgrade manager 205").

Correspondence Information

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN 4/10/2009 /Wei Y Zhen/ Supervisory Patent Examiner, Art Unit 2191